

TITLE OF THE INVENTION

A non-adhesive compression matting system and method for framing and archiving a display item.

FIELD OF THE INVENTION

The invention relates to the field of display apparatus for the easy and rapid archival matting of display items in an archival matting system to be used in picture frames and the like, and more particularly to the protection and retention of multiple desired items in the matting system.

BACKGROUND OF THE INVENTION

The support of display items in multiple windows of a mat to be placed in a picture frame is accomplished by making the windows of the mat slightly smaller than the materials to be displayed, and attaching the display items by adhesive tape or glue to the rear of the mat so that the display items do not shift within the window of the mat. Other prior art methods of securing display items provide for corner mounts or adhesive attachments to a backing board. Such mounting of display items is undesirable especially when the materials are valuable collectibles that may be damaged or suffer a loss in their value due to bending the display items so as to position the display items in the corner mounts or risking damage to the display item when trying to remove the item from the mat when it has been adhered to the mat by an adhesive. Currently, the displaying items such as stamps, currency, postcards or other items of interests, without the risk of damage, is not convenient or possible with traditional techniques.

It is an object of the present invention to provide a novel method of supporting a number of displayed items without the use of adhesives, tape or corner mounts, each of which have the potential to damage the displayed items.

It is a further object of the invention to provide a method of safely displaying sealed collectable items, such as sports related memorabilia cards, stamps or coins, the originality, rarity and value of which have been professionally rated or "graded" by a professional grading services, which, upon grading, are placed into sealed holders, so as to maintain the value established by the grading service.

It is further an object of the present invention to provide a system that is easily and entirely reversible, so that the display items may be easily changed or replaced without any damage to either the display item or the matting system.

It is further an object of the present invention to provide a matting system, which does not require any adhesives to secure the display items or any undue bending of the display items, which degrades the value of the display item.

SUMMARY OF THE INVENTION

The features and advantages of the present invention are achieved by providing a matting system for placement in a picture frame capable of storing at least one display item defined by, but not limited to post-cards, sports memorabilia cards, philatelic, coins, currency or other axially flat collectibles which can be displayed and removed without the danger of damage to the display item that is associated with current display methods.

The matting system of the first embodiment is comprised of a display mat having a window for viewing the display item and a carrier mat having at least one window that is in line with and larger than the window of the display mat, the carrier mat being adhered to the display mat, thus establishing a small frame extension around the window of the carrier mat. The carrier mat is also provided with a door substantially the same size as that of the window of the carrier mat, the door, when closed lightly compresses the display item against the frame extension established by aligning of the windows of the display and carrier mats. The doors being hinged to the carrier mat by an archival hinge material and provided with a cutout or flap so as to provide an easy means by which the doors can be opened or closed without deforming the mats.

In a second embodiment of the instant invention the doors of the carrier mat are adhesively affixed to a backer mat. The doors being affixed to the backer mat in line with the windows of the carrier mat so that the display items are held by a light compression between the doors and the frame extension. The advantage being that by removing the backer mat, all of the display items can be easily accessible without subjecting the display items to bending that would be present with traditional mats.

In a third embodiment of the instant invention, the display mat is adhered to the front of a piece of double length mat material, and a thin laminate film is adhered to the back of the mat material. The carrier mat and the backer mat being formed from the mat material by cutting the mat material without disturbing the laminate film so that the backer mat can be folded down against the back of the carrier mat in order to maintain the doors of the carrier mat in a locked position. The doors being formed by cutting the mat material and the laminate film on three sides where only the mat is cut on the fourth side so that the laminate film serves as hinge material for the doors. Such embodiment provides for the assembly of the matting system from two pieces of matting.

In a fourth embodiment of the present invention, the matting system is assembled from a single piece of mat material in which a thin laminate film is adhesively affixed to both sides of the mat material forming a three layered mat being sandwiched between two layers of laminate film. The matting material being precision or die-cut so as to provide the matting system with a display mat, a carrier mat, a backer mat and doors, all hinged to the mat material by the laminate film in order for the matting system to be folded onto itself from one piece of mat material.

The foregoing and other features and advantages of the present invention will be apparent from the following detailed description of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded view of one embodiment of the matting system in accordance with the teachings of the present invention.

FIG. 1A is a perspective view of the display board having hinged doors.

FIG. 1B is a side view of the display board having hinged doors attached by the hinge material.

FIG. 2 is a perspective view of a second embodiment of the present invention where the doors are directly attached to the backer board.

FIG. 2A is a side view of the second embodiment of the present invention.

FIG. 3 is a perspective view of a third embodiment of the present invention where a thin laminate film is adhesively secured to the back of the carrier board.

Figure 3A is a side view of the third embodiment of the assembled matting system.

Figure 4 is a perspective view of a fourth embodiment of the present invention where both sides of a single piece of mat material are layered with a thin laminate film to form the matting system.

Figure 4A is a side view of the fourth embodiment of the assembled matting system.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings in greater detail, there are illustrated therein various exemplary embodiments of the matting system made in accordance with the teachings of the instant invention. These exemplary embodiments should not be construed as limiting.

Referring to figure 1 and 1A, the matting system is generally denoted by reference numeral 10, which is comprised of a standard frame 4, where the viewing area is covered with a transparent material, a display mat 3A having at least one window 7, where a display item 5 is viewed therethrough, a carrier mat 2A having at least one window 7A in line with the at least one window of the display mat, where the window of the display mat 3A is smaller than the window of the carrier mat 2A so as to form a frame extension (not labeled) around the display item 5 and a backer mat 1A. The carrier mat having hinged doors 6A, along one side of the window so as to contain the display item within the window and the door 6A. The backer mat 1A maintaining the doors in a closed position.

Referring again to figure 1A, the carrier mat 2A is shown having a set of hinged doors 6A along one side of the window 7A. The doors 6A being substantially the same size as that of the window 7A so that the displayed item 5 is compressed between the door 6A and the frame extension, which is created around the window when the display mat 3A is secured to the carrier mat 2A.

Referring to figure 1B, the carrier mat 2A, in perspective side view, shows a hinge material 8A, which is attached to the carrier mat 2A along the said side of the window 7A and one side of the door so as to facilitate inserting and removing the display item 5. The hinge material 8A is comprised of a gummed archival tape or a pressure sensitive linen tape. The hinge material can also be comprised of any non-porous film or non-porous polyethylene using an archival grade adhesive or an acrylic based adhesive so as to protect the integrity of the display item 5 for long-term storage and display, without degrading the value of the display item 5. Archival grade or non-decaying grade adhesives are of particular importance to the matting system of the instant invention since the display items 5 have particular value in their respective fields (i.e. cards, stamps or coins) and placing such items near an adhesive which decays or creeps over a period of time potentially subjects the display item to devaluation. Figure 1B also shows a cutout or flap 10, which facilitates the opening or closing of the hinged door without disturbing the display item. The cutout or flap 10 is precision or die-cut so as to not deform the hinged door. This ensures that the display item is not warped due to any manufacturing errors in assembling or manufacturing the matting system.

Referring to a second embodiment of the instant invention as shown in figures 2 and 2A, the matting system as shown is comprised of a display mat 3B, a carrier mat 2B, and a backer mat 1B. The second embodiment of figure 2 is substantially similar to the embodiment of figures 1-1B, except that the doors are not hinged to the carrier mat 2B, but adhesively attached to the backer mat 1B. As with the adhesives of the first embodiment, all adhesives used throughout the

second embodiment and the instant invention as a whole are archival or acrylic adhesives which will not degrade the value of the display item 5 if the display item is left in the matting system for long term storage. The attached doors 6B are aligned with the at least one window 7 of the carrier mat 2B, so that when the two mats are aligned, the attached doors “dock” with the windows 7 of the carrier mat 2B so as to retain the display item 5 within the window. The exploded side view of the matting system as shown in Figure 2A, shows the display mat 3B, the carrier mat 2B and the doors 6B on the backer mat 1B.

In regards to the first and second embodiments of the instant invention as shown in figures 1-2A, the display mat can be made from a thin metal. The metal mat being adhesively secured to the carrier mat. The metal display mat allows for the display of collectable display items, which are sealed in flat plastic cases without having to place the matting system in a frame. Viewing the sealed collectible through both a layer of glass and plastic causes distortion of the display item. Ideally only one transparent layer of protection, either glass or plastic is desired in order to clearly view the collectible. The use of a metal display mat also provides security for the display item since the collectible cannot be removed without bending or damaging the item, thus preventing theft of the display item because the display item would be rendered valueless due to its damaged condition while trying to be removed.

Referring to the third embodiment of the instant invention as shown in figures 3 and 3A, the matting system as shown is comprised of a display mat 3C, a carrier mat 2C and a backer mat 1C. The carrier mat 2C, the backer mat 3C and the doors 6C are formed from a single piece of mat material where a thin laminate film 9 is adhesively secured to the back of the mat material so that the carrier and backer mats are fabricated from a single piece of mat material. The mat material and the laminate film are cut on three sides so as to form the window 7C and the doors 6C, where a fourth side is only cut through the mat without cutting the laminate film. The mat material is again cut without cutting the laminate film, which forms the carrier mat and backer mat. The thin laminate film serving as hinge material between the carrier mat 2C and the backer mat 1C, and the hinged doors 6C on the carrier mat 2C. The display mat being adhesively secured to the carrier mat.

Referring to the fourth embodiment of the instant invention as shown in figures 4 and 4A, the matting system as shown is comprised of a display mat 3D, a carrier mat 2D and backer mat 1D sections, which are assembled and manufactured from a single piece of mat material. The display mat 3D, carrier mat 2D, backer mat 3D and the doors 6D are formed from the single piece of mat material and a thin laminate film 9 is adhesively secured to the front and back of the mat material. The mat material and laminate films are cut to fabricate the windows of the display mat section 3D. The mat material is then cut on the carrier mat section 2D through both layers of the laminate film on three sides so as to form the window 7D and the doors 6D, where a fourth side is only cut through the mat and one layer of laminate film. The one layer of laminate film serving

as the hinge material of the door. The mat material and one layer of laminate film is again cut so as to form a hinge section between the display mat and carrier mat sections where the display mat folds in front of the carrier mat section. The mat material and one layer of laminate film are lastly cut without cutting the third laminate film on the opposite side of the mat material so as to form another hinge section between the carrier mat section and the backer mat section so that the backer mat section folds in back of the carrier mat section.

As described above, the matting system of the instant invention provides a number of advantages, some of which have been described above and others, which are inherent in the instant invention. Also, modifications may be proposed to the matting system 10 without departing from the teachings herein such as changing the shape and orientation of the windows to specifically suit a certain type of display item or providing a bevel, a decorative cut-out border or a raised edge along the edge of the windows on the display board. Accordingly, the scope of the invention is only to be limited as necessitated by the accompanying claims.